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10/527,186	03/10/2005	Morio Tomiyama	2005_0401A	1119
52349 7590 05/15/2008 WENDEROTH, LIND & PONACK L.L.P. 2033 K. STREET, NW SUITE 800 WASHINGTON, DC 20006				
EXAMINER				
DINH, TAN X				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/527,186

**Applicant(s)**

TOMIYAMA ET AL.

**Examiner**

TAN X. DINH

**Art Unit**

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

1) This application is a **371** of **PCT/JP03/12393**, filed on **9/29/2003**.

Receipt is acknowledged of papers submitted under 35 U.S.C.119(a)-(d) or (f). The certified copy of the priority documents have been received in this **National Stage Application** from the International Bureau (PCT Rule 17.2(a)).

The foreign document identifies as:

**JAPAN 2002-288595**, filed on **10/01/2002**.

2) The amendment/preliminary amendment filed **3/10/2005** is acknowledged.

3) The **I.D.S** filed **3/10/2005** has been considered by the Examiner. However, the Japan and/or foreign document(s), if they have not been written in English, are considered to the extent that could be understood from the English Abstract and the drawings.

Form **PTO-1449** or **PTO/SB/08** is(are) attached herein.

4) The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested:

**OPTICAL RECORDING MEDIUM HAVING CENTER SUBSTRATE REGION AND SIGNAL SUBSTRATE REGION.**

5) The drawings are objected to because **figures 2 and 3** should be

designated by a legend such as --PRIOR ART-- since only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.

The replacement sheet(s) should be labeled as "REPLACEMENT SHEET" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures.

If the changes are not accepted by the Examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

7) (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8) Claims 1,3,4,6,8,9,11,12,15,19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by ARAKAWA et al ( JP, 10-289489 ).

ARAKAWA et al discloses an optical information recording medium as claimed in claim 1, comprising:

a signal substrate that has at least a signal face formed on one of the faces thereof with a center hole ( Fig.7, 12 );

a center substrate that is placed in a manner so as to seal the center hole and to be made flat with the signal face of the signal substrate ( Fig.7, 20 and 21 );

a transparent layer that is formed on the signal face of the signal substrate and at least one portion of the center substrate, ( Fig.7, transparent layer 18 );

wherein a means used for carrying out a clamping process is provided in the center substrate ( the clamping is performed on center substrate 20 and 21 ).

As to claim 3, ARAKAWA et al shows transparent layer is formed through processes in which a photo-curable resin is applied to the center substrate and drawn to expand thereon through spinning rotations ( Computer Translation, paragraph [0038] ).

As to claim 4, ARAKAWA et al shows center substrate and the signal substrate are bonded to each other by using a photo-curable resin ( Computer Translation, paragraphs [0022], [0023] and [0035] ).

As to claim 6, ARAKAWA et al shows signal substrate and center substrate are made by the same material ( Computer Translation, paragraph [0035] ).

As to claim 8, ARAKAWA et al shows the end face of the center hole of the signal substrate and the end face of the center substrate are formed into faces, each having concavities and Convexities ( Fig.7, concavities and Convexities on layer 12 ).

As to claim 9, ARAKAWA et al shows the material forming the center substrate is a magnetic material or a material containing a magnetic material ( Computer Translation, paragraph [0044] ).

As to claim 11, ARAKAWA et al shows a reflectivity layer ( see Computer Translation, paragraph [0060] and figure 1, reflectivity layer 14 ).

As to claim 12, ARAKAWA et al shows the signal substrate and center substrate are made from the same materials ( Computer Translation, paragraph [0035] ).

Method claim(s) 15 is drawn to the method of using the corresponding optical recording medium claimed in claim 1. Therefore, method claim is rejected for the same reasons of anticipation (obviousness) as used above.

As to claim 19, ARAKAWA et al shows a means for bonding the center substrate and the signal substrate to each other through a photo-curable resin, wherein a curing process of the photo-curable resin and the curing process of the photo-curable resin of the

transparent layer are simultaneously carried out ( Computer Translation, paragraphs [0022], [0023], [0035] and [0038] ).

As to claim 20, ARAKAWA et al shows a means for forming an information recording layer after the signal substrate and the center substrate have been formed into an integral part ( Figures 5,6 and 7 ).

9) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10) This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11) Claims 2,5,7,10,13,14,16-18,21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over ARAKAWA et al ( JP, 10-289489 ).

ARAKAWA et al discloses all the subject matter as claimed in claim 2, *except to specifically show that the thickness of the center substrate is made equal to or greater than the thickness of the signal substrate and set to be not more than 1.2mm. However, the feature of thickness of the center substrate  $\geq$  the thickness of the signal substrate and set to be not more than 1.2mm are common features in CD, DVD, HD-DVD or Blu-ray disc. Therefore, anyone of ordinary skill in the art at the time of the invention was made would have been motivated to use these features in ARAKAWA et al's optical recording disc as claimed.*

As to claim 5, the feature of melt and bond any elements in optical disc are old and widely used in making optical recording medium.

As to claim 7, it would have been obvious to form tapered shape for center substrate since the center substrate could be formed by any desirable sizes and shapes.

As to claim 10, it would have been obvious matter of design choice to modify ARAKAWA et al's optical recording medium by having a clamp unit contains material with thermal conductivity not less than 10W/mK, since applicant has not disclosed that having the clamp



unit at this specific value could solve any stated problem or is for any particular purpose, and it appears that the clamp unit in ARAKAWA et al's optical recording medium would perform equally well with or without thermal conductivity not less than 10W/mK as claimed.

As to claims 13 and 14, the features of using various different position of clamp portions on optical recording medium is old and widely used in the optical recording art.

As to claims 16 and 17, ARAKAWA et al suggests to suck the signal substrate onto rotation table ( Computer Translation, paragraph [0048] ).

As to claim 18, the feature of using vacuum to suck center substrate or signal substrate are old and common knowledge in the art ( see Computer Translation, paragraph [0048] ).

As to claim 19, ARAKAWA et al suggests a means for bonding the center substrate and the signal substrate to each other through a photo-curable resin, wherein a curing process of the photo-curable resin and the curing process of the photo-curable resin of the transparent layer are simultaneously carried out ( The bonding and curing process are shown in figures 2-8 ).

As to claim 21, the feature of melting and bonding any selectable elements in widely used in making optical recording

medium.

As to claim 22, ARAKAWA et al suggests to use rotation table for fixing center substrate ( Fig.9, rotation table 100 ), and using vacuum suction ( Computer Translation, paragraph [0048] ).

As to claim 23, ARAKAWA et al suggests a means for applying a bonding agent or a photo-curable material to the end face of the center substrate, wherein the rotation table has a function for sucking the center substrate and the signal substrate ( Computer Translation, paragraphs [0037] and [0038] ).

As to claim 24, ARAKAWA et al suggests a rotation table having a function for sucking one portion of the face of the transparent layer, and a melt-bonding means for melting by heat and bonding the center substrate and the signal substrate to each other ( Fig.10, rotation table 100 and Computer Translation, paragraphs [0048] and [0049] ).

12) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant is reminded that in amending in response to a rejection of claims ( if the rejection involves with any applicable arts ), the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objection

made. Applicant must also show how the amendments avoid such references and objections. See 37 CFR § 1.111(c).

Form PTO-892 is attached herein.

13) Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAN Xuan DINH whose telephone number is 571-272-7586. The examiner can normally be reached on MONDAY-FRIDAY from 8:30AM to 5:30PM.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/TAN Xuan DINH/  
Primary Examiner, Art Unit 2627  
May 8, 2008